



UNITED STATES PATENT AND TRADEMARK OFFICE

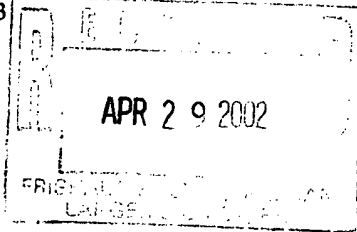
UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER OF PATENTS AND TRADEMARKS
Washington, D.C. 20231
www.uspto.gov

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 09/655,348 | 09/05/2000 | Seiji Tatsuta | 00632/LH | 7809 |

7590

04/24/2002

Frishauf Holtz, Goodman Langer & Chick PC
767 Third Avenue 25th Floor
New York, NY 10017-2023



EXAMINER

PAIK, STEVE S

ART UNIT

PAPER NUMBER

2876

DATE MAILED: 04/24/2002

due July 24, 02

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/655,348

Applicant(s)

TATSUTA, SEIJI

Examiner

Steven S. Paik

Art Unit

2876

— The MAILING DATE of this communication appears on the cover sheet with the correspondence address —
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 September 2000.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-21 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 4,5.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

DETAILED ACTION

Priority

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Claim Objections

2. Claim 4 is objected to because of the following informalities: the words "a code is" in line 22 on page 52 appears to be superfluous. Appropriate correction is required.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 4, 5, 14 and 15 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. It is vague and unclear as to what the applicant is intending to claim with regard to the relationship among the non-interference area, interference image placed in the vicinity of the code, and the data code as set forth in the claims. The examiner respectfully suggests the applicants to provide the specific distinction between the non-interference area in line 20 on page 52 and line 23 on page 52 of the specification, such as, a first non-interference area and a second non-interference area. Appropriate clarification and correction is required.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

Art Unit: 2876

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 1, 11 and 21 are rejected under 35 U.S.C. 102(a) as being anticipated by applicant's admitted prior art (AAPA).

Regarding claims 1, 2, 11, 12 and 21, AAPA discloses a data recording medium (page 1, BACKGROUND OF THE INVENTION), comprising:

an area in which data is recoded as a code that can be optically read by a manual scanning process (page 1, ll. 11-15); and

a non-interference area placed on the periphery of the code (10), the non-interference area being an area from which any interference image having an attribute causing adverse effects in reading the code (10) is not allowed exist (page 1, ll. 16-27 and page 2, ll. 1-2).

7. Claims 1-3, 6-8, 11-13, 16-18 and 21 are rejected under 35 U.S.C. 102(b) as being anticipated by Fukuda et al. (U.S Patent No. 5,866,895, cited by the applicant).

Regarding claims 1, 11 and 21, Fukuda et al. disclose a data recording medium (34 in Fig. 25 and col. 5, line 52), comprising:

an area in which data is recoded as a code (data code 10 in Fig. 3 and col. 5, ll. 52-53) that can be optically read by a manual scanning process (col. 10, ll. 49-52); and

a non-interference area (14, 16 and 18 in Fig. 3) placed on the periphery of the code (10), the non-interference area being an area from which any interference image having an attribute causing adverse effects in reading the code (10) is not allowed exist (col. 10, ll. 58-67 and col. 11, ll. 1-36).

Regarding claims 2 and 12, Fukuda et al. disclose the data recording medium as recited in rejected claims 1, and 11 stated above respectively, where the non-interference area (14, 16 and 18 in Fig. 3) is designed so that only the non-interference image having an attribute causing no adverse effects on the code reading process is allowed exist (Fukuda et al. disclose that in the data read reference point determining section and the subsequent sections, only the binarized data is processed, Fig. 25 and col. 10, ll. 37-42).

Regarding claims 3 and 13, Fukuda et al. disclose the data recording medium as recited in rejected claims 1, and 11 stated above respectively, in which the non-interference area is placed based upon the attribute of the interference image (influence of noise near the data code) located in the vicinity of the code (10).

Regarding claims 6 and 16, Fukuda et al. disclose the data recording medium as recited in rejected claims 1, and 11 stated above respectively, where the non-interference area is positioned in accordance with positioning performance of the reading device (image input section 38 in Fig. 25) for reading the code and the specification of the code (col. 8, ll. 48-54).

Regarding claims 7 and 17, Fukuda et al. disclose the data recording medium as recited in rejected claims 6, and 16 stated above respectively, in which the positioning performance includes a positioning performance that is determined based upon at least one of the external shape and size of the reading device (col. 16, ll. 33-45 shows the positioning performance of a reading device is determined by specifications depends on the structure. This inherently teaches that the positioning performance of a reading device have a direct relationship with a particular structure of the reading device) in the vicinity of the part of the reading device (38) which is to contact the recording medium (34 in Fig. 25) to read the code (36).

Regarding claims 8 and 18, Fukuda et al. disclose the data recording medium as recited in rejected claims 7, and 17 stated above respectively, in which if there is any directivity in the positioning performance, a wider non-interference area is provided on the side having the lower positioning performance based on the directivity (col.16, ll. 33-45 shows the positioning performance of a reading device is determined by specifications depends on the structure. Furthermore, a reading device comprising a light-emitting element inherently includes characteristics of directivity. Figure 3 also shows a wider non-interference area (14, 16 and 18).

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claims 5, 9, 10, 15, 19 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fukuda et al. (U.S. Patent No. 5,866,895) in view of Iizuka (U.S. Patent No. 5,464,054).

Regarding claims 5 and 15, Fukuda et al. disclose the data recording medium as recited in rejected claims 1, and 11 stated above respectively. He, however, does not specifically shows the size of the non-interference areas placed on the respective sides of the code in the scanning direction of the code is set to be wider than the size of the non-interference area placed on the respective sides of the non-interference areas placed on the respective sides of the code in the direction orthogonal to the scanning direction of the code.

Iizuka, on the other hand, shows a method and apparatus for recording and reproducing an optically readable data comprising the size of the non-interference areas (W1, W2, W4 and

Art Unit: 2876

W5 in Fig. 2) placed on the respective sides of the code (22) in the scanning direction (main scanning direction) of the code is set to be wider (Fig. 2) than the size of the non-interference (guide lines 21) area placed on the respective sides of the non-interference areas placed on the respective sides of the code in the direction orthogonal (sub-scanning direction) to the scanning direction of the code (22). Iizuka further discloses the invention enables highly accurate decoding of a particular code pattern even if the sampling reference pattern is partially destroyed by contamination or other possible defects.

In view of Iizuka's teaching, it would have been obvious to an artisan of ordinary skill in the art at the time the invention was made to further employ a method and apparatus for recording and reproducing an optically readable data having guidelines and data start and stop marks in addition to the data code of Fukuda et al. for the purpose of reading and reproducing a data code with high accuracy (col. 11, ll. 28-55). Furthermore, such modification of employing different dimensions of guidelines, start and stop marks to the teachings of Fukuda et al. would have been an obvious matter of design variation, well within the ordinary skill in the art, and therefore an obvious expedient.

Regarding claims 9 and 19, Fukuda et al. in view of Iizuka disclose the data recording medium as recited in rejected claims 6 and 16, respectively stated above, where the specifications of the code include the width of the code ($W1+W2+W3+W4+W5$ in Fig. 2) in the direction orthogonal to the scanning direction (main scanning direction) of the code (20).

Regarding claims 10 and 20, Fukuda et al. in view of Iizuka disclose the data recording medium as recited in rejected claims 9 and 19, respectively stated above, in which when data is recoded in an overlapped manner (Fig. 2) in the width direction of the code, the width of the

Art Unit: 2876

code is defined as the entire width (encoded image 20) including the porting having the data recorded (22) in the overlapped manner in the width direction (col. 10, ll. 42-47).

Conclusion

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.


Wang (U.S. Patent No. 5,304,787) discloses a method for locating a barcode image for an accurate decoding result.

Batterman et al. (U.S. Patent No. 5,189,292) discloses a two dimensional optically encoded code having a finder pattern to provide information for decoding the code.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Steven S. Paik whose telephone number is 703-308-6190. The examiner can normally be reached on Mon - Fri (7:00am-4:30pm, alternating Mon. off).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael G. Lee can be reached on 703-305-3503. The fax phone numbers for the organization where this application or proceeding is assigned are 703-308-7722 for regular communications and 703-308-7722 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0530.


Steven S. Paik
Examiner
Art Unit 2876

ssp
April 19, 2002


MICHAEL G. LEE
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2800